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EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT

PAPER NUMBER

3726

DATE MAILED: 03/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/748,012

Applicant(s)

NAKANO, HIROYUKI

Examiner

Marc Jimenez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 12/27/1999. It is noted, however, that applicant has not filed a certified copy of the Japan 11-369952 application as required by 35 U.S.C. 119(b).

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 3, 4, and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuyama (JP 57172374 A).

Matsuyama teaches a fixing roller (PURPOSE, line 2 and CONSTITUTION, lines 2-3) comprising a core (CONSTITUTION, lines 1-2, "metallic roller which becomes the base material of the fixing roller"), a primer layer applied on the periphery of the core (CONSTITUTION, lines, 4-5, "a primer is applied as required to increase the adhesive force"), and a fluoro-resin top layer applied on the periphery of the primer layer (CONSTITUTION, lines 7-15), wherein glass particles are mixed into at least one of the primer layer and the top layer (CONSTITUTION, lines 5-6, "glass fibers are mixed in a fluoro-resin disperse liquid"). Note that

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in applicant's response filed 2/6/03, applicant states that "The glass fiber in Matsuyama is contained 3 % or more while the glass particles of the present invention, as herein amended, are contained 1-3 %. If the glass fiber in Matsuyama is contained 3 % or more, note that in the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) (The prior art taught carbon monoxide concentrations of "about 1-5%" while the claim was limited to "more than 5%." The court held that **"about 1-5%" allowed for concentrations slightly above 5%** thus the ranges overlapped.); *In re Geisler*, 116 F.3d 1465, 1469-71, 43 USPQ2d 1362, 1365-66 (Fed. Cir. 1997). See attachment at the end of this office action of taken from MPEP 2144.05 regarding obviousness of ranges.

It is unclear how applicant knows how Matsuyama has glass fiber containing 3% or more as stated in applicant's response filed 2/6/03 (see page 2, fourth paragraph). In response to this office action, applicant is requested to submit an English translation of the section of Matsuyama which teaches that the glass fiber contains 3% or more.

If it is determined that Matsuyama does not in fact teach using a 3% glass fiber, at the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have used a top layer with a glass particle weight ratio of "less than 3%" as claimed, because applicant has not disclosed that using a weight ratio of less than 3% provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either the glass weight ratio taught by Matsuyama or the claimed "less than

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3%” because both ratios perform the same function of reinforcing the top layer equally as well considering the size of the roll. Therefore, it would have been an obvious matter of design choice to modify Matsuyama to obtain the invention as specified in claim 1. Furthermore, Table 5 in applicant’s specification shows that a glass weight ratio of 3% or more (third embodiments “5” and “6”) provides the same results as a glass weight ratio of less than 3% (third embodiments “2”, “3”, and “4”). All produce “excellent” results (see also page 17, line 3 of applicant’s specification).

4. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuyama.

Matsuyama teaches the invention cited above with the exception of the glass particles being mixed into only the primer layer.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, that the glass particles being mixed only to the primer layer is clearly a matter of design choice because applicant has not disclosed that mixing glass particles only to the primer provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant’s invention to perform equally well with glass particles in the top layer as taught by Matsuyama or with the claimed glass particles being mixed only to the primer layer because glass particles placed in either the top layer only or the primer layer only perform the same function of providing good releasability. It is noted that in Table 3 of applicants specification at page 12, the use of a roll with glass particles mixed only into the primer layer (“2<sup>nd</sup> embodiment”) does not provide an improvement over the embodiment of glass particles is mixed into only the top layer (“1<sup>st</sup> embodiment”), Matsuyama also teach that

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the glass particles is mixed to the top layer. In fact, the embodiment with glass particles mixed only into the primer layer ("2<sup>nd</sup> embodiment") actually produces the worst result according to Table 3 of applicant's specification compared with glass particles mixed only into the top layer (1<sup>st</sup> embodiment) or glass particles mixed into both the top and primer layers (3<sup>rd</sup> embodiment).

5. **Claims 5 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuyama in view of Yakushiji (JP 58017872 A).

Matsuyama teaches the invention cited above with the exception of the glass particles being mixed into the primer layer.

Yakushiji teaches glass particles (CONSTITUTION, lines 5-8) mixed into a primer layer

2.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have alternatively provided the invention of Matsuyama with glass particles mixed into the primer layer, in light of the teachings of Yakushiji, in order to reinforce the primer layer as suggested by Yakushiji at lines 7-8 of the CONSTITUTION.

The limitations of claim 6 have been addressed above as being taught by Matuyama.

6. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Matuyama in view of Ream et al. (6,284,373).

Matuyama teach the invention cited above with the exception of the total thickness of the primer layer and the top layer being arranged in up to 30micrometer.

Ream et al. teach a primer layer and top layer being arranged in up to 30micrometer (col. 4, lines 24-34).

It would have been obvious to one of ordinary skill to have made the thickness of the primer layer and the top layer being arranged in up to 30micrometer, in light of the teachings of Ream et al., in order to provide a layer having the desired thickness that is evenly applied to the roll surface and has good releasability.

7. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Matuyama in view of Tsukida et al. (5,450,181) and Takahashi et al. (6,132,815).

Matuyama teach the invention cited above with the exception of the total thickness of the primer layer and the top layer being arranged in up to 30micrometer.

Tsukida et al. teach a fluroresin layer having a thickness of 20micrometer (col. 21, lines 26-27).

Takahashi et al. teach a primer layer having a thickness of 8micrometer (col. 8, lines 47-48).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Matuyama with the appropriate primer layer and top layer thicknesses, in light of the teachings of Tsukida et al. and Takahashi et al., in order to provide a layer having the desired thickness that is evenly applied to the roll surface and has good releasability.

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8. **Claims 9-11 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matuyama in view of Jinzai (5,572,275).

Matuyama teaches the invention cited above with the exception of having a fluororesin overtop layer applied to the peripheral surface of the top layer.

Jinzai teaches in fig. 2 a fixing roller 1 which has a fluororesin overtop layer 1a (see also col. 4, line 19) applied to the peripheral surface of a top layer 1a. Note that Jinzai also teaches a primer layer 1b and the top layer 1a is also a fluororesin layer (PFA).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Matuyama with a fluororesin overtop layer applied to the peripheral surface of the top layer, in light of the teachings of Jinzai, in order to provide an anti-offset layer (as suggested by Jinzai at col. 4, line 18). Note that Jinzai teaches that the overtop layer 1d is devoid of the glass particles and the overtop layer 1d includes PFA (col. 4, line 19).

9. **Claims 12, 13, and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matuyama in view of Jinzai as applied to claims 9, 10, and 14 above, and further in view of Ream et al.

Matuyama/Jinzai teach the invention cited above with the exception of the total thickness of the primer layer, top layer, and the overtop layer being arranged in up to 30micrometer.

Ream et al. teach primer, top, and overtop layers being arranged in up to 30micrometer (col. 4, lines 24-34).

It would have been obvious to one of ordinary skill in the art to have made the thickness of the primer top, and overtop layers being arranged in up to 30micrometer, in light of the



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teachings of Ream et al., in order to provide a layer having the desired thickness that is evenly applied to the roll surface and has good releasability.

10. **Claims 12, 13, and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matuyama in view of Jinzai as applied to Claims 9, 10, and 14 respectively above, and further in view of Tsukida and Takahashi et al.

Matuyama/Jinzai teach the invention cited above with the exception of the total thickness of the primer, top, and overtop layers being arranged in up to 30micrometer.

Tsukida et al. teach a fluoro-resin layer having a thickness of 20 micrometer (col. 21, lines 26-27).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have made the thickness of the primer, top, and overtop layers being arranged in up to 30micrometer, in light of the teachings of Tsukida and Takahashi et al., in order to provide a layer having the desired thickness that is evenly applied to the roll surface and has good releasability.

#### ***Response to Arguments***

11. Applicant's arguments with respect to Claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

12. Applicant has not addressed the 35 U.S.C. 103(a) rejections in the last office action with respect to Matsuyama as the primary reference. Therefore, these rejections are maintained in this final rejection.

***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Interviews After Final***

14. Applicant note that an interview after a final rejection will not be granted unless the intended purpose and content of the interview is presented briefly, in writing (the agenda of the interview must be in writing) to clarify issues for appeal requiring only nominal further consideration. Interviews merely to restate arguments of record or to discuss new limitations will be denied. See MPEP 714.13 and 713.09.

***Contact Information***

15. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to [CustomerService3700@uspto.gov](mailto:CustomerService3700@uspto.gov).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is **703-306-5965**. The examiner can normally be reached on **Monday-Friday, between 5:30 am- 2:00 pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 703-308-1513. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

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Other helpful telephone numbers are listed for applicant's benefit.


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MJ

March 13, 2005

  
**GREGORY WDOVICH**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**

interleukin 2 to homogeneity in a view of a reference which taught a method of purifying proteins having molecular weights in excess of 12,000 to homogeneity wherein the prior art method was similar to the method disclosed by appellant for purifying interleukin 2.).

Compare *Ex parte Gray*, 10 USPQ2d 1922 (Bd. Pat. App. & Inter. 1989) (Claims were directed to human nerve growth factor b-NGF free from other proteins of human origin, and the specification disclosed making the claimed factor through the use of recombinant DNA technology. The claims were rejected as *prima facie* obvious in view of two references disclosing b-NGF isolated from human placental tissue. The Board applied case law pertinent to product-by-process claims, reasoning that the prior art factor appeared to differ from the claimed factor only in the method of obtaining the factor. The Board held that the burden of persuasion was on appellant to show that the claimed product exhibited unexpected properties compared with that of the prior art. The Board further noted that "no objective evidence has been provided establishing that no method was known to those skilled in this field whereby the claimed material might have been synthesized." 10 USPQ2d at 1926.).

#### 2144.05 Obviousness of Ranges

See MPEP § 2131.03 for case law pertaining to rejections based on the anticipation of ranges under 35 U.S.C. 102 and 35 U.S.C. 102 /103.

#### I. OVERLAP OF RANGES

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) (The

prior art taught carbon monoxide concentrations of “about 1-5%” while the claim was limited to “more than 5%.” The court held that “about 1-5%” allowed for concentrations slightly above 5% thus the ranges overlapped.); *In re Geisler*, 116 F.3d 1465, 1469-71, 43 USPQ2d 1362, 1365-66 (Fed. Cir. 1997) (Claim reciting thickness of a protective layer as falling within a range of “50 to 100 Angstroms” considered *prima facie* obvious in view of prior art reference teaching that “for suitable protection, the thickness of the protective layer should be not less than about 10 nm [i.e., 100 Angstroms].” The court stated that “by stating that suitable protection’ is provided if the protective layer is about’ 100 Angstroms thick, [the prior art reference] directly teaches the use of a thickness within [applicant’s] claimed range.”). Similarly, a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (Court held as proper a rejection of a claim directed to an alloy of “having 0.8% nickel, 0.3% molybdenum, up to 0.1% iron, balance titanium” as obvious over a reference disclosing alloys of 0.75% nickel, 0.25% molybdenum, balance titanium and 0.94% nickel, 0.31% molybdenum, balance titanium.).

## II. OPTIMIZATION OF RANGES

### A. Optimization Within Prior Art Conditions or Through Routine Experimentation

Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. “[W]here the general conditions of a claim are